AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method of performing dual multiply-accumulate operations in a data processing system, the method comprising:

calculating, in parallel, a first multiplication product of a first coefficient and a

first sample, and a second multiplication product of the first coefficient

and a second sample, ; and

wherein the first sample and the second sample are from a plurality of sequential

samples and[;]

wherein the first sample is an (n)th sample and the second sample is an (n+2)th

sample in the plurality of sequential samples; and

accumulating subsequent multiplication products with the first multiplication

product into a final product.

2. (Original) The method as recited in Claim 1, further comprising:

full scale negative testing the first sample and the second sample.

3. (Canceled)

4. (Currently amended) The method as recited in Claim 3 1, further comprising:

saturating the final product.

5. (Original) The method as recited in Claim 1, wherein the first sample and second sample are odd samples in the plurality of sequential samples.

6. (Original) The method as recited in Claim 1, wherein the first sample and second sample are even samples in the plurality of sequential samples.

7. (Currently Amended) The method as recited in Claim 1, further comprising:

calculating, in parallel, a third multiplication product of a second coefficient and a

third sample and a fourth multiplication product of the second coefficient

and a fourth sample[;],

wherein the third sample and the fourth sample are from the plurality of

sequential samples[;] and

wherein the third sample is an (n+1)th sample and the second sample is an

(n+3)th sample in the plurality of sequential samples.

8. (Original) The method as recited in Claim 1, further comprising:

calculating, in parallel a fifth multiplication product of a second coefficient and

the first sample, and a sixth multiplication product of the second

coefficient and the second sample generating a sixth product, and

accumulating in parallel, the fifth multiplication product with the first

multiplication product and the sixth multiplication product with the second

multiplication product.

9.   (Original) The method as recited in Claim 5, wherein the first coefficient and second coefficient are filter coefficients.

10. (Original) The method as recited in Claim 1, wherein the calculating in parallel comprises executing a multiply accumulate single-instruction-multiple-data (SIMD) instruction.

11.-28. (Canceled)

29.   (Currently amended) An article comprising a storage medium having instructions stored thereon, the instructions operable to <u>perform dual multiply-accumulate</u> <u>operations by causing a data processing system to</u>:

    calculate, in parallel, a first multiplication product of a first coefficient and a first

        sample, and a second multiplication product of the first coefficient and a

        second sample[;]<u>,</u>

    wherein the first sample and the second sample are from a plurality of sequential

        samples[;] <u>and</u>

    wherein the first sample is an (n)th sample and the second sample is an (n+2)th

        sample in the plurality of sequential sample; ~~and~~

    <u>calculate, in parallel, a third multiplication product of a second coefficient and a</u>

        <u>third sample and a fourth multiplication product of the second coefficient</u>

        <u>and a fourth sample.</u>

wherein the third sample and fourth sample are from the plurality of sequential

samples and

wherein the third sample is an (n+1)th sample and the second sample is an

(n+3)th sample in the plurality of sequential samples; and

output a first, a second, a third and a fourth filter coefficient.

30.   (Original) The article as recited in Claim 29, wherein the first sample and second sample are odd samples in the plurality of sequential samples.

31.   (Original) The article as recited in Claim 29, wherein the first sample and second sample are even samples in the plurality of sequential samples.

32.   (Canceled)

33.   (Currently amended) The article as recited in Claim 29, the instructions further operable to:

calculate, in parallel, a fifth multiplication product of a second coefficient and the

first sample, and a sixth multiplication product of the second coefficient and the second

sample generating a sixth product, and

accumulate, in parallel, the fifth multiplication product with the first

multiplication product and the sixth multiplication product with the second multiplication

product[;],

wherein the fifth multiplication product and sixth multiplication product produce

a fifth filter coefficient, and a sixth filter coefficient.

34.   (Original) The article as recited in Claim 33, wherein the first coefficient and second coefficient are filter coefficients.

35.   (Original) The article as recited in Claim 29, wherein to calculate in parallel comprises to execute a multiply accumulate single-instruction-multiple-data (SIMD) instruction.